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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,600	09/10/2001	Ludo Adriaensen	016782-0230	6512
22428	7590	05/20/2004	EXAMINER	
FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			GRAY, JILL M	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,600

Applicant(s)

ADRIAENSEN ET AL.

Examiner

Jill M. Gray

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[Handwritten signature]

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

The rejection of claims 13-24 under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al, 4,774,105 in view of Kotera et al, 4,340,519 and Creps 4,358,887 is withdrawn in view of applicants amendments.

Claim Objections

Claims 27 and 28 are objected to because of the following informalities:
"terephthalate" and "naphthenate" are misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 40 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed is devoid of any teaching regarding the degree of red, green, blue and yellow of the intermediate coating, and, this property is not inferred nor can it be implied from the disclosure as filed. Accordingly, this limitation in the claim is new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-21, 23, 25-26 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamida et al, 5,575,866 (Minamida) in view of Creps 4,358,887.

Minamida teaches a method of manufacturing a steel wire comprising providing a steel core, coating said core with an intermediate coating layer such as a brass plating or zinc plating, and wet-drawing, as required by claims 20, 23, 30, 32, and 35. See column 10, lines 6-13. Minamida is silent as to a polyester coating. Creps teaches a method of manufacturing a coated steel substrate comprising providing a steel core, coating said core with an intermediate coating layer such as zinc, wherein said coating is done by the hot-dip method as required by claims 21 and 33, and as known in the art and further coating with a polymer such as clear polyester (claims 25 and 26), to increase the corrosion protection. It would have been obvious to modify the method of manufacturing a steel wire and resultant wire as taught by Minamida by including the process step of further coating the steel core with an intermediate coating layer with a polyester, as taught by Creps, in order to increase the protection against corrosion of the resultant wire.

It should be noted that Creps teaches that it is known in the art that using the hot-dip method results in a bright surface of zinc coated steel. See column 1, lines 57-15. Further, it should also be noted that Creps does not add chromate to obtain a bright

surface, rather, chromate is deposited on the shiny coating to retain it's brightness. See column 3, lines 29-31. Therefore, it is the examiner's position that the resultant wire of Minamida necessarily has a bright surface and that said brightness is due to the peripheral roughness of the intermediate coating layer, as required by claims 37-39. Furthermore, the combined teachings of Minamida and Creps would have provided direction to the skilled artisan for modifying the process of Minamida by quantifying the degree of brightness based on the peripheral roughness of the coated steel wire.

Claims 22, 24, 27-28, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamida et al, 5,575,866 (Minamida) in view of Creps 4,358,887, further in view of Kotera et al, 4,340,519 (Kotera).

Minamida and Creps are as set forth previously but are silent as to the specific polyester or coloring said polyester. Kotera teaches a polyester resin aqueous dispersion that has excellent adhesion to metals and excellent anticorrosion properties and is useful as wire coating, wherein the substrates can be steel or metal coated steel. See column 8, lines 1-18 and column 9, lines 8-13. The polyester can be a polyethylene terephthalate, is transparent and can contain pigments or coloring agents as required by claims 14-17 and 22. See column 7, lines 61-64. Regarding claims 27 and 28, it would have been obvious to use as the polyester of Creps a polyester as taught by Kotera that has excellent adherence and anticorrosive properties. As to claims 22, 29, and 34, Kotera teaches that pigments and other coloring agents can be added. See column 7, lines 55-64. Regarding claims 24 and 36, Kotera teaches that the polyester can be extrusion coated. As to claims 37-39, it should be noted that

Creps teaches that it is known in the art to result in bright or shiny surface of zinc coated steel substrates. Note column 1, line 57 through column 2, and line 15. Further, it should be noted that Creps does not add chromate to obtain a bright surface; rather, chromate is deposited *on the shiny coating to retain its brightness* (emphasis added). See column 3, lines 29-31. Therefore, it is the examiner's position that the resultant wire of Minamida necessarily has a bright surface and that said bright surface is due to the peripheral roughness of the intermediate coating layer, as required by claims 37-39. In the alternative, the combined teachings of Minamida and Creps would have provided direction to the skilled artisan for modifying the process of Minamida by quantifying the degree of brightness based on the peripheral roughness of the coated steel wire.

Claims 25-26, 29-30, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takazawa et al, 4,774,105 (Takazawa) in view of Hiromori et al, 4,791,025, (Hiromori).

Takazawa teaches a metal article comprising a core covered with an intermediate coating layer and a synthetic resin coated thereupon. The core can be a steel wire, the intermediate coating layer is a metallic coating and the synthetic resin is polyester which can be used in the form of a powder, film or paint, essentially as claimed by applicants in claims 25 and 26. See column 2, lines 30-32. In addition, the metallic coating can be a metal of the type set forth by applicants in claim 30. See column 2, lines 15-27. Takazawa is silent as to a drawn wire.

Hiromori teaches a stainless steel wire comprising a steel wire covered with an intermediate coating layer and a paint resin applied thereto. The paint resin can be

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polyester and can have an organic or inorganic coloring agent added, as required by claims 25, 26, 29, and 30. See column 1, lines 60-63 and column 2, lines 3-28. In addition, Hiromori teaches that the painted steel wire is drawn to obtain a uniform wire diameter. See column 2, lines 29-31. Accordingly, Hiromori teaches a drawn wire.

It would have been obvious to modify the teachings of Takazawa by drawing his wire to obtain a drawn wire having a uniform wire diameter as taught by Hiromori. The fact that Hiromori teaches drawing his wire after baking the paint resin is of no moment to the resultant product, namely, a drawn wire having a steel core covered with an intermediate coating layer and a polyester coating immediately upon said intermediate coating, as required by claim 25. As to the presence of a bright looking surface, applicants have admitted on the record that the bright looking surface is resultant from drawing. Accordingly, it is the position of the examiner that this property would be inherent in the drawn wire suggested by the prior art.

Therefore, the combined teachings of Takazawa and Hiromori would have rendered obvious the invention as claimed in present claims 25-26, 30 and 39.

Claims 20-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strohmeier, 3,630,057 in view of Takazawa et al, 4,774,105 (Takazawa), Creps, 4,358,887 and Kotera et al, 4,340,519 (Kotera), each as applied above to claims 1-40.

Strohmeier teaches drawn copper-plated steel wire and method of making comprising providing a steel core, coating said steel core with an intermediate coating comprising a copper-sulfate coating, per claims 30-31, and drawing said coated steel wire as required by claims 20 and 32. In addition, Strohmeier teaches that the plating is

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done by a hot-dip method, as required by claims 21 and 33, and the drawing is done by wet-drawing, as set forth in claims 23 and 35. See abstract and column 2, lines 56-75.

Strohmeier does not teach an outer polyester coating.

Takazawa, Creps and Kotera are each as set forth above, and are relied upon for their teachings that it is known in the art to coat steel wire and metal-plated steel wire with polyester to provide rust and corrosion protection to the wire. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the coated steel wire of Strohmeier by coating said steel wire with a polyester to provide antirust and anticorrosion properties to the wire. As to the wire having a bright surface, the fact that Strohmeier uses a wet drawing method necessarily suggests that the wire has a bright surface.

Therefore, the combined teachings of Strohmeier, Takazawa, Creps and Kotera would have rendered obvious the invention as claimed in present claims 20-39.

Response to Arguments

Applicant's arguments with respect to claims 20-40 have been considered but are moot in view of the new ground(s) of rejection.


No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524.

The examiner can normally be reached on M-F 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



jmg

Jill M. Gray
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1774

